# Advances in Biometrics

Third International Conference, ICB 2009 Alghero, Italy, June 2-5, 2009 Proceedings



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#### **Preface**

It is a pleasure and an honour both to organize ICB 2009, the 3<sup>rd</sup> IAPR/IEEE International Conference on Biometrics. This will be held 2–5 June in Alghero, Italy, hosted by the Computer Vision Laboratory, University of Sassari. The conference series is the premier forum for presenting research in biometrics and its allied technologies: the generation of new ideas, new approaches, new techniques and new evaluations. The ICB series originated in 2006 from joining two highly reputed conferences: Audio and Video Based Personal Authentication (AVBPA) and the International Conference on Biometric Authentication (ICBA). Previous conferences were held in Hong Kong and in Korea. This is the first time the ICB conference has been held in Europe, and by Programme Committee, arrangements and by the quality of the papers, ICB 2009 will continue to maintain the high standards set by its predecessors.

In total we received around 250 papers for review. Of these, 36 were selected for oral presentation and 93 for poster presentation. These papers are accompanied by the invited speakers: Heinrich H. Bülthoff (*Max Planck Institute for Biological Cybernetics, Tübingen, Germany*) on "What Can Machine Vision Learn from Human Perception?", Sadaoki Furui (*Department of Computer Science, Tokyo Institute of Technology*) on "40 Years of Progress in Automatic Speaker Recognition Technology" and Jean-Christophe Fondeur (*SAGEM Security and Morpho, USA*) on "Large Scale Deployment of Biometrics and Border Control". In this conference we have also explored the evaluation of biometrics with a session of papers on challenges in evaluations: one on "Face Video Competition at ICB 2009", on "Partial Face Matching between Near Infrared and Visual Images in MBGC Portal Challenge", and on "Overview of the Multiple Biometric Grand Challenge". The conference itself is followed by the annual Biometrics Summer School which has been held at Alghero for the past six years and its presenters, past and present, feature many of the programme and organising committee.

We are naturally very grateful for the efforts of many people. Firstly, we thank the entire conference committee for their valuable support in several stages of the organization. In particular we thank Anil Jain, Josef Kittler and Tieniu Tan who enthusiastically provided support and advice. The reviewing itself always appears a Herculean task and we were grateful that reviewers completed this in good time, and especially to those who came in at short notice. Equally, the other co-Program Chairs Arun Ross and Stan Li gave much of their time to finalise the final selection for the conference with major help in coordinating and actioning the reviewing process and developing the final program. The local organising committee have coordinated many of the local arrangements for the conference. Marinella Cardoni managed the review stage expertly. The Computer Vision Laboratory staff: Enrico Grosso, Linda Brodo, Massimo Gessa, Andrea Lagorio, Ajita Rattani and Elif Surer, are sorting the conference itself. Also, we are very grateful to the IAPR TC4 and the IEEE Biometrics Council, particularly to the Chairs Tieniu Tan and Rama Chellappa. The support from Accenture, GreenBit, Sagem, the European Union COST Action 2101 on "Biometrics in Identity

Documents", the foundation "Fondazione Banco di Sardegna", and the University of Sassari is also acknowledged. Finally, we are grateful to Springer for their production of the Proceedings, Alfred Hofmann and Wayne Wheeler in particular.

By papers, location and content this promises to be an excellent edition of the International Conference on Biometrics series. The conference continues to provide a snapshot of research in world-wide leading institutions on research in biometric recognition, and the many components if this fascinating research area, especially as it reaches world prominence given its increasing contribution to our societies' advancing security. By the program, papers and venue, we wish all delegates a most enjoyable conference

> Massimo Tistarelli Mark Nixon

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